maintained so as to keep the components securely in place. Also, each switch, frog, and guard rail must be kept free of obstructions that may interfere with the passage of wheels.

(b) Classes 4 through 6 track must be equipped with rail anchors through and on each side of track crossings and turnouts, to restrain rail movement affecting the position of switch points and frogs.

(c) Each flangeway at turnouts and track crossings must be at least 1½ inches wide.

[36 FR 20336, Oct. 20, 1971, as amended at 38 FR 876, Jan. 5, 1973]

§ 213.135 Switches.

(a) Each stock rail must be securely seated in switch plates, but care must be used to avoid canting the rail by overtightening the rail braces.

(b) Each switch point must fit its stock rail properly, with the switch stand in either of its closed positions to allow wheels to pass the switch point. Lateral and vertical movement of a stock rail in the switch plates or of a switch plate on a tie must not adversely affect the fit of the switch point to the stock rail.

(c) Each switch must be maintained so that the outer edge of the wheel tread cannot contact the gage side of the stock rail.

(d) The heel of each switch rail must be secure and the bolts in each heel must be kept tight.

(e) Each switch stand and connecting rod must be securely fastened and operable without excessive lost motion.

(f) Each throw lever must be maintained so that it cannot be operated with the lock or keeper in place.

(g) Each switch position indicator must be clearly visible at all times.

(h) Unusually chipped or worn switch points must be repaired or replaced. Metal flow must be removed to insure proper closure.

§ 213.137 Frogs.

(a) The flangeway depth measured from a plane across the wheel-bearing area of a frog on class 1 track may not be less than 1⅜ inches, or less than 1½ inches on classes 2 through 6 track.

(b) If a frog point is chipped, broken, or worn more than five-eighths inch down and 6 inches back, operating speed over the frog may not be more than 10 miles per hour.

(c) If the tread portion of a frog casting is worn down more than three-eighths inch below the original contour, operating speed over that frog may not be more than 10 miles per hour.

§ 213.139 Spring rail frogs.

(a) The outer edge of a wheel tread may not contact the gage side of a spring wing rail.

(b) The toe of each wing rail must be solidly tamped and fully and tightly bolted.

(c) Each frog with a bolt hole defect or head-web separation must be replaced.

(d) Each spring must have a tension sufficient to hold the wing rail against the point rail.

(e) The clearance between the hold-down housing and the horn may not be more than one-fourth of an inch.

§ 213.141 Self-guarded frogs.

(a) The raised guard on a self-guarded frog may not be worn more than three-eighths of an inch.

(b) If repairs are made to a self-guarded frog without removing it from service, the guarding face must be restored before rebuilding the point.

§ 213.143 Frog guard rails and guard faces; gage.

The guard check and guard face gages in frogs must be within the limits prescribed in the following table:

Class of track	Guard check gage—The distance between the gage line of a frog to the guard line[1] of its guard rail or guarding face, measured across the track at right angles to the gage line,[2] may not be less than—	Guard face gage—The distance between guard lines,[1] measured across the track at right angles to the gage line,[2] may not be more than—
1	4′6⅛″	4′5¼″
2	4′6¼″	4′5⅛″
3, 4	4′6⅜″	4′5⅛″